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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/08/2004

Mark S. Haberbush

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08/02/2006

PEARNE & GORDON LLP

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EXAMINER

PETTITT, JOHN F

ART UNIT

PAPER NUMBER

3744

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claim 45, drawn to a hydrogen powered automobile with a hydrogen storage system, classified in class 180, subclass 65.2.
- II. Claims 1-44, and 46-53, drawn to a hydrogen storage and delivery system, classified in class 62, subclass 6.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the hydrogen powered automobile with storage system does not require that the orifice pulse tube refrigerator be vertically arranged (as defined by the applicant in the specification). The subcombination has separate utility such as a hydrogen storage system for a rocket or as hydrogen storage system for hydrogen-cooled electronics.

Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

If the applicant elects invention II, the applicant is further required to elect one of the following patentably distinct species:

(A) a hydrogen storage and delivery system in which the following are within the primary vacuum chamber:

the liquid hydrogen storage vessel, the first and second stage regenerators, cold heat exchangers, and pulse tubes.

And the following are outside of primary vacuum chamber:

First and second stage hot heat exchangers, primary orifices, inertance tubes, and reservoir volumes

(B) a hydrogen storage and delivery system in which the following are within the primary vacuum chamber:

the liquid hydrogen storage vessel, cooling system, first and second stage regenerators, cold heat exchangers, pulse tubes, and hot heat exchangers.

The species are independent or distinct because species A prohibits certain elements to be within the primary vacuum chamber, and those same elements are allowed within the chamber by the definition of species B. They are mutually exclusive.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is

finally held to be allowable. There are no generic claims presented relative to the location of elements within the primary housing.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

A telephone call was made to John P. Murtaugh on July 19<sup>th</sup>, 2006 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not

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distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pettitt whose telephone number is 571-272-0771. The examiner can normally be reached on M-F 8a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JFP III  
July 20, 2006

  
CHERYL TYLER  
SUPERVISORY PATENT EXAMINER